ON GENERAL PARALYSIS. BY M. PINEL.

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I LISTENED with deep interest and earnest attention to the remarks which were made at our two last meetings, by our learned friends, MM. Parchappe, Delasiauve and Baillarger. It is not my intention at present to discuss opinions so different and even so opposite as those which have been expressed on the subject of general paralysis. I merely wish to state some general propositions, to follow them with a few remarks, and to mention a number of facts in support of the views which appear to me to be correct ; to touch lightly on the subject of diagnosis, and to read you some comments which I made, a few months since, on a communication read by M. Baillarger before the Society of Medicine, of Paris. I will conclude by describing a case of recovery, which will serve to confirm the views advanced by our distinguished brethren, Drs. Baillarger and Delasiauve, in relation to the curability of the disease under discussion.

1. General paralysis is a distinct and special disease, characterized by lesion of the voluntary motions, which lesion has a tendency to progress and become general.

2. It exists either singly, or in a state of complication. In the first case it is distinct and isolated from every other disease ; no disorder of the intelligence is observable. In the second case it is frequently associated with insanity, and then the different symptoms proper to the two morbid conditions are present.

3. The disease known by the name of general paralysis of the insane, or paralytic insanity, is only a combination of general paralysis with mental derangement.

4. Uncomplicated general paralysis may continue sometimes, though rarely, during life without the supervention of insanity.

5. It is sometimes accompanied by deficient memory, which can not, however, be confounded with dementia.

6. In most cases madness supervenes, sooner or later, on the lesion of motion.

7. At other times the physical and mental disorders appear to originate at the same time, but in general the lesion of motion precedes that of the intelligence.

8. In another class of cases, which are less frequent, the paralysis is secondary.

9. Uncomplicated general paralysis is never seen in asylums for the insane, because its subjects, not being deprived of their reason, are treated elsewhere.

10. It is in general practice, in private asylums, or in ordinary hospitals that it is most frequently met with.

11. It may precede, accompany, or follow different mental disorders,—mania, monomania, melancholia, but especially dementia. At times the last makes its appearance simultaneously with the first signs of muscular debility.

12. Ambitious monomania, which was at first considered to be a constant sign of general paralysis, is often wanting.

13. Genital weakness is not so common as has been stated. When it is present at the commencement, it is sometimes replaced even at an advanced period, by excitement of the sexual organs. At other times the virile powers are completely and irrecoverably lost.

14. In the last stages the general sensibility is in most cases very obtuse ; sometimes it is preserved to the end.

15. The course of general paralysis is ordinarily chronic, but in some cases it is acute.

16. Remissions, which lead to the hope of recovery, are often remarked in the course of paralysis complicated with mental alienation.

17. The most frequent causes,—in spite of assertions to the contrary—are alcoholic, and especially venereal excesses.

18. Women are less subject to this malady than men, because they can more readily remove themselves from the influence of this two-fold cause.

19. The inhabitants of northern countries are more exposed to general paralysis than those of the south, who make a more moderate use of alcoholic drinks. If these last give themselves with more license to the pleasures of love, they are compensated by being better able to bear its fatigues.

20. Cerebral congestion frequently precedes the first appearance of general paralysis. In the greater number of cases it is renewed during the progress of the disease, which it tends to aggravate.

21. The prognosis is in general very unfavorable, and the termination fatal; nevertheless, there are well attested cases of recovery.

22. Moderate local bleedings in the commencement *only*: and when there are signs of vascular congestion, issues at the base of the cranium, repeated blistering to the scalp, shower-baths, and revulsives to the bowels and extremities, are the principal means to be employed in the treatment.

What are the nature and seat of general paralysis? What are its anatomical characters? Are the *post-mortem* appearances constant, or are they sometimes wanting? When they are observed, are they uniformly the same, or do they sometimes differ? May they not be the effect rather than the cause of the disease?

In the actual state of our knowledge it is difficult to answer these questions; the opinions of writers being widely different. The greater number believe in the existence of a peripheral inflammation of the cortical substance of the brain, with tendency to softening.

Some practitioners, when no appreciable cadaveric lesion is found, are disposed to believe that general paralysis may be of a purely nervous character. In these cases may it not be with general paralysis as with those nervous disorders whose nature is unknown, and whose true seat is yet to be discovered? What do we know, in this respect, of epilepsy, of tetanus, of chorea, of hydrophobia, of insanity, of hypochondriasis? There is much yet to be learned in relation to general paralysis, and it would perhaps be wise to wait before deciding positively upon its nature.

I certainly believe in some alteration of the nervous centres, because I do not admit an effect without a cause; but what is this

cause, that is to say, this morbid condition? This is a point upon which I think we are still ignorant—at least in a certain number of cases. Will the microscope remove these doubts? I sincerely desire it, and the recourse to this instrument shows that the ordinary means of investigation have left much to be desired.

M. Linas, whose thesis I have read with great pleasure, earnestly maintains that general paralysis is necessarily accompanied with some derangement of the intellectual faculties, either excitement, perversion, or depression. He grants that the first may be wanting, but declares that the last is never absent. It is true that in his opinion any degree of weakness of intellect is dementia. Esquirol, whose authority he invokes, thus defines dementia: "A chronic, cerebral affection, characterized by defect of the sensibility, the intelligence, and the will, with incoherence of ideas, deficiency of intellectual and moral spontaneity, and impossibility of reasoning justly." Can we admit that a partial impairment of the intellectual faculties, as for example a weakness of memory, increased emotional sensibility, and slight diminution in the aptitude for intellectual labor, and in the energy of the will, can be considered as evidences of dementia? Do we not frequently see patients under the influence of painful chronic disorders, of violent grief, of misfortunes, of misery, of the depressing passions, of continued loss of sleep, of excessive mental exertion, &c., affected with slight mental impairment, without being considered demented? And how can patients suffering from general paralysis, who are perfectly conscious of the nature of their disease, not be affected by this consciousness, and experience some intellectual and moral enfeeblement?

While admitting that there may be in some cases of general paralysis a *partial* weakening of the mental faculties, without the existence of dementia, I assert that I have seen others in which it was impossible to verify it. M. Guislain says on this subject: "I have seen in my private practice paralysis of the whole muscular system run a slow and gradual course, ending in death, without the patient, during the whole progress of the disease, showing any delirium or disorder in the intellectual operations. These patients have con-

tinued to their last moments conscious of their condition."—(Vol. 1, p. 338.)

Is epilepsy, which is ordinarily accompanied by insanity, and especially by dementia, necessarily connected with it, and do we not every day see epileptics whose fits occur but seldom, preserve the perfect integrity of their moral and intellectual faculties until death? Why may it not be so in general paralysis? I am convinced that general paralysis is not a disease peculiar to the insane; that it is not a special form of insanity, and that it does not necessarily lead to it; that it is an independent and distinct disease so long as the lesion which produces it does not extend to the molecular portion of the brain, which presides over the intellectual faculties; and I have no hesitation in believing that this part of the encephalon may be spared for a certain time, or even during the remainder of life. I am far from being persuaded that motility and intelligence have the same seat in the brain. If it were so the intellectual lesion would always show itself simultaneously with that of motion; but experience proves the contrary, since months and even years may elapse without our being able to observe the least sign of mental impairment. Physicians at the head of establishments at which none but the insane are received, have evidently been able to study general paralysis only as accompanied with insanity, and have thus been induced to regard it as a species or variety of mental alienation. How can it be maintained with reason that a disorder, which may exist for months and years without presenting the least trace of intellectual disturbance, is a form of mental derangement? This is interpreting facts in the same manner as those who pretend that general paralysis may exist without lesion of motility.

It can be readily understood why patients attacked with uncomplicated general paralysis, whose reason is fully preserved, whose judgment is perfect, whose will has never faltered, whose consciousness and appreciation of facts are unimpaired, should not wish to consult a physician known in our specialty, and to be placed under his care, for that would be to admit unequivocally that their reason was compromised. It can also be seen that families would guard

against having recourse to the advice of an alienist, and for a much stronger reason would avoid placing the patient under his immediate care. It is only at a later period of the disease, when trouble or impairment of the intellect is superadded to the paralytic symptoms, that it is thought proper to consult an alienist, or to place the patient in an asylum. I may add that it is only as an exception that alienists are called to treat patients attacked with general paralysis in its simple form, and that of necessity paralytics submitted to their examination are almost constantly insane.

From the fact that the greater number of alienists have not had occasion to study general paralysis at its onset, nor to observe its development and gradual increase with complete absence of psychological phenomena, and from their so frequently seeing, on the other hand, lesion of the motor faculties united with that of the intelligence, some of them have concluded that it was a paralysis peculiar to the insane, and consequently always connected with derangement of the intellect; others that it was of a different nature from that which had been observed in patients attacked with insanity. Both of these opinions appear to us to be erroneous.

General paralysis, it is well known, was formerly confounded with ordinary paralysis, and alienist physicians, and among others, Ph. Pinel, Haslam, and Esquirol, had remarked the frequency of this complication among the insane, and the serious consequences resulting therefrom. Doctors Delaye, Bayle, and especially Calmeil have fixed the attention of the medical world upon this disease which they studied at the Salpêtrière and at Charenton, that is to say, in institutions for the insane; therefore it ought not to be thought strange that they have regarded it as a disease peculiar to the insane. Nevertheless, Dr. Delaye had at that time published a case of general paralysis without alienation. The opinions of these distinguished alienists were shared by all physicians, until Drs. Prus, Requin, Sandras and others, demonstrated by clinical observations that general paralysis might exist without being associated with madness; afterwards it was observed in private practice and in ordinary hospitals. Professor Rostan, who like all other physicians, at first shared

the views of M. Calmeil, has noticed cases of general paralysis at the Hôtel Dieu, and has given lectures on the subject, in which he delivered opinions contrary to those of the physician of Charenton.

M. Rostan, I need scarcely say, is engaged in an especial manner with affections of the brain. Every one is familiar with his valuable labors on cerebral softening at the Salpêtrière, where he also acted during the long absence of M. Parisel, as physician-in-chief to the insane department. It may therefore be said that he has all the knowledge and experience of an accomplished alienist. He is without doubt more consulted than any other physician, in affections of the nervous centres, and no one has seen so many cases of general paralysis in its incipient stage,—his opinion ought therefore to be allowed great weight. When therefore he says, that of six general paralytics who have come under his notice in his private practice, five were entirely free, for a considerable time, of the slightest trace of insanity, we may with good reason be surprised when we hear distinguished alienists affirm that it always exists either before or at the commencement of the attack of paralysis. M. Rostan does not deny, any more than myself, that in most cases general paralysis brings with it, at a period more or less advanced, either general or partial insanity, or impairment of the mental faculties. It acts, in this respect, like most cerebral affections which are capable of determining a psychical disorder. Epilepsy, apoplexy, chorea, eclampsia, hysteria, &c., often produce the same effects without our being warranted in believing that these disorders are epileptic, apoplectic, choreic, eclamptic, or hysterical insanity; on the contrary they have always been regarded as separate and distinct disorders.

If it is so with these morbid conditions, why may it not be the same with general paralysis? It is in vain to seek to interpret adversely to our views the cases reported by Prus, Requin, Sandras, Baillarger, Lunier, and others. I do not wish to put a stop to discussion of the subject, but M. Rostan related to me, a few days since, that he had had under his care, for nearly ten years, the father of a member of the Institute, affected with general paralysis without mental disorder, or the least impairment of the mental and moral pow-

ers ; and it was only towards the tenth year that mental disorder supervened, speedily ending in death.

In 1842, M. Rostan and myself had under care for many months in my private establishment, where it is known I receive also patients who are not insane, a general paralytic, whose disease was of about one year's duration. Though his memory was somewhat enfeebled, he continued to attend to business, and he was perfectly sensible of his condition. The same year M. Trousseau sent to me another patient affected with general paralysis. This patient had been treated about a year, in the country. We subjected him for several months to very active treatment with only slight benefit. This patient's reason was not at all effected ; there was no trace of insanity. Slight deficiency of memory could alone be detected. He was able to manage his affairs before coming to me, and resumed their direction upon leaving.

M. Trousseau said to me, a few days since, that he did not regard general paralysis as a disease peculiar to the insane ; that he had treated a number of general paralytics who presented no symptom of mental disorder ; and that general paralysis without mental alienation is of the same nature as that observed among the insane.

M. Hervez de Chegoin has seen, both in hospital and private practice, many cases of general paralysis without the least mental disturbance. This learned physician entirely coincides in opinion with Professors Rostan and Trousseau.

An officer in the army had been treated at the hospital of Metz, and in that of Val de Grace, during about six months, for general paralysis, as certified by the physicians. He presented, in fact, when he entered my establishment in 1846, all the symptoms of general paralysis in the second stage. He gave me an account of his condition with perfect clearness, and described to me all the details of his case, and of the treatment to which he had been subjected. His memory, which was at first impaired, improved soon after his admission ; and he did not manifest the least sign of intellectual disorder. He returned to Metz in the same condition.

A patient, living in the Champs Elysees, whose physician I had

been for many years, was affected during four or five years with general paralysis, the progress of which was slow, though constant. He spoke with great difficulty. His voice was weak, his hands were tremulous, and fulfilled their office very imperfectly. His gait was slow and tottering, his feet dragged on the ground, and he needed a person to support him in walking. The saliva escaped from his mouth, and at times his urine and fæces passed involuntarily. He retained the most complete possession of his intellectual faculties; his memory was in no wise enfeebled; he read the journals, and different authors, and took part in conversation with persons who came to visit him, though he could scarcely articulate so as to be understood. During the time that I had this patient under my observation, his intellect was not affected, though the paralysis made continued progress, and he died two years afterwards in a country house near Versailles.

M. X., merchant, of sanguine temperament, was attacked, at about the age of fifty years, with paralysis of the tongue, supposed to have been caused by the suppression of an abundant hemorrhoidal discharge, which had existed for a great number of years. At first there was a slight hesitancy in his pronunciation, and a difficulty in expressing certain words, which surprised and annoyed him. These symptoms gradually increased, and M. X. decided upon coming to Paris for advice. He arrived in the city after a journey of a few days, and was surprised to find himself perfectly well. He talked with the greatest ease, and considered himself so thoroughly cured that he thought it unnecessary to ask the advice of a physician, during the month that he remained in the capital. He returned to the country, pleased with the prospect of seeing his family, but the day after reaching home the difficulty of speech returned, which he attributed to having indulged in sexual intercourse. Seabathing was ordered, which appeared to do harm, chiefly apparent in the upper extremities, which became more feeble. The patient wrote with difficulty, and his writing was scarcely legible. For three years and a half these symptoms gradually increased, and M. X. came the second time to Paris for advice. I saw him a few days

after his arrival. His speech was much affected ; the tongue was increased in volume and tremulous, but protuded in a right line. His lips were affected with a spasmodic twitching, and his hands were weak and unsteady. The inferior extremities permit him to take daily walks. There is nothing wrong with the bladder. There is constipation. Erections are common, and coitus is more frequent than is consistent with the welfare of the patient. Sensibility is not diminished ; digestion and nutrition are well accomplished ; the circulation is in a healthy condition ; the sight and hearing present no change, and the moral and intellectual faculties are in a state of perfect integrity. The patient writes with difficulty, but his friends remark no difference in the style of his letters ; they always display the same animation, the same clearness, and the same aptitude for business.

After consulting different physicians, and among others, M. Rostan, M. X. returned to the south, where the disease continued its progress. His hands became more feeble and tremulous ; the lower limbs weaker from day to day ; pronunciation more and more embarrassed ; deglutition was effected with difficulty ; and the respiration was labored. The patient writes upon a slate, with a pencil attached to his wrist, and his writing shows that he understands what he hears.

He is familiar with the news of the day, and remembers what he has heard the day before, or on preceding days ; and he continues to take an interest in his business. He can no longer move from his bed or his chair, and comprehends perfectly the serious nature of his disorder. He died, surrounded by his family, about a year after leaving Paris the second time, and five years from the commencement of the attack ; his reason continuing perfect to the last moment of life.

A captain in the Tenth Regiment, in Spain, my former companion and friend, experienced, several years ago, a difficulty in pronouncing certain words. He was sensible of it, and sometimes succeeded in pronouncing them after some effort ; and at other times was obliged to write them with a pencil. Afterwards his pronunciation became more difficult ; and the paralysis extended gradually

to the upper and lower extremities, without the intellect being affected, or the memory becoming at all impaired. This condition continued for many years, until I lost sight of the patient. I have since learned that the disease terminated fatally.

I have seen in my private practice a lady who had been affected with general paralysis about twelve months. All her faculties were entire, and even the memory showed no impairment.

Professor Chomel sent me in 1855, a general paralytic, putting at the head of his letter of consultation, in Latin, the words, *general paralysis*. This patient was a merchant, actively engaged in business. His reason was normal, his memory unimpaired, but the disease, which had continued for two years, was increasing. He left me after a residence of two months, nearly in the same condition.

A patient of Dr. Cannet had been affected with general paralysis for three years, before becoming insane, and being placed under my care. He was a government officer, and had performed his duties up to the time of becoming insane.

We could adduce other examples, all tending to show that general paralysis may exist for a length of time, and even until death, without necessarily being accompanied by insanity, or mental impairment of any kind. In the greater number of cases, where it has been thought to have commenced at the same time with madness, it has almost always preceded it. This is at least my conviction, after careful inquiry in the cases of the disease which I have had the opportunity of observing.

I am well aware that it may be objected that I have been deceived, and have mistaken for general paralysis other affections, such as symptomatic or spinal paralysis, and have overlooked the psychical symptoms. I would say in reply, that I may certainly, in some instances, have been mistaken; but I cannot believe that I have always committed errors in diagnosis, which errors, moreover, if they exist, have been equally committed by other physicians high in the rank of science.

Does the expression *symptomatic general paralysis* really represent a peculiar morbid affection? Do paralytic phenomena present

nearly the same characters, or do they offer marked differences, so that the different lesions of motion may be easily recognized and classified? Dr. Delasiauve was, I believe, the first to attempt this. He has divided general paralysis into idiopathic and sympathetic, and has given the signs which distinguish them. He does not admit, for example, that the general paralysis which complicates epilepsy, is of the same nature as that which he calls idiopathic. Notwithstanding the efforts of our learned friend, whose important labors no one appreciates more highly than myself, I think there are numerous cases in which it would be impossible to say, This is an example of idiopathic, and that of general paralysis.

To study general paralysis with good results it is necessary to inquire in the first place, when it is simple, primitive, isolated and independent; whether two forms ought to be admitted, the one which does not terminate in insanity, (and which would be that whose characters have been determined by the researches of MM. Brierre de Boismont, and Duchenne of Boulogne,) the other which is followed more or less promptly by mental alienation. Can we not, if it were desirable to make classifications and distinctions, admit different species, such as general paralysis accompanied from the first with dementia; general paralysis under an acute form; that under the chronic form; general paralysis commencing with the various forms of excitement or depression; that designated by M. Baillarger under the name of congestive mania; secondary general paralysis, for which the name of general paralysis of the insane has been retained; the lesions of motion complicating other disorders, such as hysteria, epilepsy, apoplexy, &c., symptomatic paralysis, if it were possible to establish the positive signs of the lesions which determine it; alcoholic or saturnine paralysis; and that which is due to muscular atrophy.

It certainly would be a great advantage to distinguish all these paralytic affections, but we must first be able to determine, by inspection of the patient, the morbid alterations which produce them; to indicate the symptoms which announce that any given portion of the brain is diseased; that it is alteration of the gray substance

which causes certain symptoms ; that it is lesion of the white substance which is manifested by other phenomena ; that diminution of the volume and weight of the encephalon, its hardening or softening, are manifested by special signs ; that serous effusions into the ventricles, and the formation of false membranes and tumors of different kinds, are recognized during life. It must be confessed that there yet remains much to be done, notwithstanding the labors of so many alienists of great merit. It therefore appears to me that it would be prudent to wait before deciding positively upon the nature of the different forms of general paralysis.

The symptoms characteristic of uncomplicated general paralysis are exclusively somatic. It is the tongue, the lips and the limbs which present the first symptoms of this malady. These signs, an embarrassment more or less marked in the pronunciation of words, or of certain words and letters, and sometimes impossibility of articulating, spasmodic trembling of the muscles of the lips and tongue, a vermicular movement of this organ which is protruded in a right line, feebleness and trembling of the hands, an unsteady gait, displaying itself by a defect of co-ordination in the movements of progression, difficulty of preserving the equilibrium in an upright position, by scraping the ground with one or both feet, by deviation from a straight course in walking, and by involuntary flexion of the femoro-tibial articulation. When these symptoms have supervened upon cerebral congestion, with or without loss of consciousness, or when they are manifested slowly and progressively ; when they are more apparent on certain days, and disappear to show themselves anew at another time ; and when to these symptoms are added pastiness and augmentation in the volume of the tongue, hoarseness or feebleness of the voice amounting sometimes to aphony, a peculiar expression of countenance, shrinking of the features, dullness of the eyes, a general condition of anæmia, or congestion about the head, insomnia, continual restlessness, dilatation of one pupil, winking of the eyelids, and anesthesia more or less extensive of the skin, the existence of general paralysis may be almost positively affirmed.

When mental alienation is superadded to the lesion of motion the

series of psychical symptoms is then presented, and this double morbid condition takes the character which has been designated under the name of paralytic insanity, or paralysis of the insane. If the form of insanity is dementia, the intellectual and moral faculties are more or less enfeebled; memory of recent occurrences is almost null, association of ideas, reason and judgment are difficult or impossible, mental activity and the will no longer exist, or are scarcely manifested. The affections are replaced by complete indifference, and the emotional sensibility is manifest without reason or motive. An air of dullness and stupidity is apparent in the whole aspect, which is the more striking as the lesion of motion is more advanced.

If it is general insanity it may amount to the most intense maniacal excitement, and present all the characters which mark this psychical condition. Nevertheless, if the patients are examined carefully it will be perceived that their will readily yields, and that they are more easily managed than cases of ordinary mania. In the midst of their extravagance and excitement are frequently manifested ideas of grandeur, ambition and omnipotence, more baseless and more absurd than those of ordinary insanity.

If it is monomania, the ideas from the first are irrational, the patients are gay, lively, loquacious, free in their conversation even to indecency, easy in their affairs to the extent of prodigality, inclined to make useless or ridiculous bargains. Their habits and character are changed; from gentle, benevolent and polite, they become irritable, uncivil and ill-natured. Self-exaltation, vanity, pride and ambition, which at first were scarcely perceptible, are now manifested, and ideas of this kind are carried to the absurd and the impossible, to the most complete and unreasonable extravagance.

If it is depressive insanity it takes the character of hypochondriasis or melancholy, but more frequently these two forms are united, or occur alternately. The expression of this form may present the appearance and give the idea of simple, hypochondriacal melancholy, if attention is not directed to the somatic phenomena, whose presence will dissipate all doubt. I need not say that the union of insanity and paralysis gives to the physiognomy of the patient a pe-

culiar expression, which results evidently from the morbid manifestation of the two orders of psychical and somatic phenomena, and that this expression varies according to the form of insanity, and the period of the lesion of motion.

In the diagnosis of this form of paralysis it ought to be remembered, that its special character is to be *general, incomplete, and progressive,—general*, because of its tendency to extend and to reach progressively the whole organism; sometimes strongly marked upon one region of the body, sometimes upon another, in such a manner that on one day the patient cannot pronounce a single word, or is bent to one side, or suffers complete paralysis of one limb, while a few days after, or perhaps the next day, speech and motion will have returned; *incomplete*, because the motor power is never abolished entirely and at the same time in these different parts; *progressive*, because in the greater number of cases it makes incessant progress, presenting nevertheless, remissions more or less marked, and terminating sometimes, though rarely, in recovery.

In regard to the differential diagnosis it will be sufficient to say, that in order to make it out with the greatest possible certainty, it is necessary to analyze carefully the somatic symptoms, and to compare them with those presented by other forms of paralysis, and other morbid conditions of the nervous centres. In the general paralysis of the insane we must compare certain psychical phenomena (hallucinations, for example) with the special illusions of delirium tremens, and not forget that ambitious ideas are a frequent symptom of paralytic insanity.

In the cases of general paralysis accompanied with insanity, almost complete remissions sometimes occur, which seem to promise recovery. In these cases the psychical and somatic symptoms do not disappear simultaneously; the one order may become scarcely appreciable, while the other is still apparent. In such cases the mental disturbance may slowly disappear, reason may gain the ascendancy, and the actions and language present nothing unusual, or rather the psychical symptoms may be of such a character that they can not be recognized without very close attention. Among other patients

the contrary is observed. They retain their insane ideas after the paralysis has disappeared.

Should there be no longer any disturbance of the intellect, we may remark, at times, that the speech is more or less hesitating and embarrassed, that the tongue is slightly tremulous, that the upper lip twitches spasmodically, that one of the pupils is dilated, that the gait is tottering, that the hands are unsteady and cannot grasp or hold small objects. These symptoms, which are far from being always united, may disappear gradually, and leave few or no traces behind them. This remission is of longer or shorter duration. In the greater number of cases it lasts but a short time, and is followed by new symptoms. It is during these periods of remission, that alienist physicians are often solicited, either by the administrative authorities, by courts, or by families, to give their opinion on the condition of patients who are very anxious to be restored to their liberty. All alienists have had opportunities of seeing similar cases, and been obliged to pronounce an opinion. It is well known how difficult it is at times to make out a correct diagnosis without a prolonged examination of the paralytic insane. We have at this time under our observation patients presenting complete remissions, after having shown the most decided symptoms of general paralysis with ambitious mania ; some even who have presented the characters of dementia with advanced paralysis.

Professor Rostan and Dr. Baroux sent me the case of an engineer affected with ambitious insanity and general paralysis, which had made rapid progress. Epileptiform attacks of extreme violence and frequent occurrence accompanied with the most intense mania, had led his physicians to believe that his life would be of short duration. Topical bleeding at the base of the cranium, and blisters on the whole scalp caused a cessation of the convulsions, and some diminution of the excitement. The patient sunk into a state of the most dangerous prostration ; an enormous abscess formed, invading the whole of the right thigh, and discharged every day one or two quarts of pus ; large eschars formed upon different parts of the body, but principally over the sacrum ; the delirium continued, the debility

became extreme, the emaciation was fearful, the urine and stools passed involuntarily, and a fatal termination was hourly expected. Fresh blisters were successively applied to the head, at the same time that tonic treatment was employed. As soon as it was possible to lift the patient into a bath he was subjected to cold affusions, of the temperature of 10 or 12 degrees, (about 50° Fahrenheit) for two or three minutes at a time. Under the influence of this treatment the cerebral symptoms gradually diminished, the sleep and the appetite returned, the evacuations were no longer involuntary, the immense sinus of the thigh contracted, the pus diminished in quantity, the eschars filled up, and M. T. was able in about two months to leave his bed, and to take a few steps. The baths were continued, as well as the tonics, assimilation and nutrition were soon accomplished in such a manner that he regained his flesh, and his physical health left nothing to be desired. The difficulty of speech, which was at first considerable, disappeared, and it was only occasionally that slight hesitancy in the pronunciation could be detected, the gait which had been tottering became steady, and he could take long walks without fatigue. His appetite was voracious and could only with difficulty be satisfied, the sleep was excellent, in a word all the bodily symptoms gradually diminished, and finally disappeared entirely. His intellect unhappily did not undergo the same improvement, and his mind though less disturbed was sufficiently so for the disorder to be perceptible. His family, happy to see him so much better than they had ever hoped, took him to Belgium, and we are since ignorant what became of him. This case, of which I have only been able to give a brief summary, is remarkable on more than one account, but principally for the favorable termination, which there was so little reason to expect. It shows that in the most hopeless cases we ought not to neglect to employ very active treatment, and that abundant suppurations, either artificial or natural, contribute powerfully, if not to a perfect cure, at least to a sensible amelioration. It ought not to be forgotten that the paralytic symptoms alone disappeared, while the intellectual disturbance remained, though in a less degree. I would ask if even an alienist, who had seen M. X.

for the first time, during this period of remission, would have suspected that he had been attacked with general paralysis ?

In September, 1855, the viscount X., who had for some time manifested symptoms of insanity with general paralysis, was brought to my establishment by the advice of Drs. Ferrus and Arnal. In a consultation, which was called a few days after, symptoms were observed of ambitious mania, with impairment of the memory, incoherence of ideas, difficulty of speech, &c. A short time after, there were filthy habits, involuntary evacuations, increased difficulty of speech, and vain and ambitious ideas. Eight months were passed in this state. Toward the end of spring and during the remainder of the year there was considerable improvement. The articulation was free, the step firmer, and the physical strength was increased, but the ideas were still irrational, though less so than at first. Shortly afterwards the memory returned, not only of facts long anterior, but also of recent occurrences. The patient wrote letters, which were generally rational. He demanded his liberty of the prefect of police, of the procurator-general, and of the judge of the court. Some of his friends, satisfied of his recovery, applied to the authorities to have him discharged. The examinations of M. Ferrus verified a notable improvement, but not a complete cure. MM. Ferrus and Rostan visited M. X., in whom they could discover no symptom of insanity, or of paralysis. They advised greater liberty, walks in the country and amusements, and if the improvement continued, a journey, and finally removal either to the country residence of the patient, or that of a friend. M. X. is removed to another part of the house, where he is no longer in communication with the insane. During the whole autumn he goes out many hours daily ; he passes his evenings in rational society, and we are able to observe him still more closely. He presents no symptoms of derangement ; his conversation is rational, his manners are agreeable, and, according to the opinion of people who had known him for a long time, he was never better ; he appeared to be restored in fact to his normal condition. Towards the end of autumn he was not so well ; was more irritable, and committed improprieties if my presence did not

restrain him. He formed anew absurd projects, aspired to great employments, talked much more, could no longer be permitted to walk out, and demanded his liberty with great earnestness. The procurator-general questioned him, and my advice was asked. It was contrary to the wishes of the patient and those of his friends, who were constantly running to the different authorities. Towards the end of December, our learned colleague, M. Parchappe, was appointed by the court to state his mental condition. This distinguished physician visited him twice with an interval of three weeks. During the first interview, the patient answered in such a manner as to leave some doubt in the mind of M. Parchappe. On the second examination the intellectual impairment, the defect of reason and judgment are manifest; nevertheless there is no embarrassment of speech,—at the most perhaps a slight hesitancy very rarely noticed, such as existed, it was said, before the attack; and no other symptom of paralysis. M. Parchappe was decided as to the necessity of keeping M. X. in the institution, and confirmed the unfavorable prognosis given by M. Ferrus and myself at the time of his admission into my establishment. The disease continues to progress, the symptoms of paralysis of the tongue, and of the extremities have commenced anew, and at present he is in a state of complete dementia.

The psychical phenomena at first united to the somatic, remained after the latter had disappeared. They then showed themselves with renewed activity, while the symptoms of paralysis only returned at a later period. At present the two orders of symptoms are reunited, but they are far from being of the same intensity.

Two other patients lately seen by MM. Rostan and Ferrus presented remissions nearly similar. The first, who was sent to me by Dr. Lourel, presented symptoms of melancholia with difficulty of speech; some months later the melancholia subsided, leaving only slight weakness of intellect and want of mental activity and energy, but the stammering was more apparent than at first. Dilatation of the right pupil, observed in the commencement, persisted without any diminution. Within three months the patient has gone to live with

a member of his family. We have little expectation of his recovery. The second, a patient of Dr. Bossion, manifested, in 1856, considerable mental excitement, accompanied with ideas of grandeur and ambition. He believed himself to have been placed in the establishment by order of the Emperor, and during the first six months always addressed me by the title of Prince. His speech was at times embarrassed, and the articulation was imperfect. During the first months of 1857 there was almost complete remission. The most of the symptoms had disappeared to such an extent that it was thought that the patient might soon be restored to his family. In the course of the summer the symptoms were renewed in an aggravated form; complete dementia, involuntary evacuations, filthiness, prostration, eschars on different parts of the body, extreme emaciation, thickness of speech, and difficult and tottering gait. The symptoms of paralysis, however, do not equal those of the intellectual impairment, which has reached almost the last degree. Towards autumn the paralytic symptoms disappeared; nutrition is again accomplished, the sleep is good, and the flesh is regained, the intellect is restored, incoherence of ideas no longer exists, the memory is perfect, he is no longer insane, thinks himself well, and wishes to return to his home, or go to the country. MM. Ferrus, Rostan and Bossion are consulted, and think it necessary that his stay should still be prolonged, notwithstanding the great improvement. Four months after, the mind is again depressed, the circle of ideas is limited, the patient repeats constantly the same words. The speech is free, there remains only slight hesitation, the step is firm, the muscular strength good, embonpoint considerable. M. X. has returned to habits of remarkable propriety, his toilet is carefully attended to, the paralysis is scarcely perceptible, but the intellectual impairment is more apparent. During the last month the dementia is more obvious, and the somatic phenomena, which had disappeared, have shown themselves afresh. Emaciation came on suddenly, and makes daily progress, he has again become filthy, and his physical strength gradually diminishes.

Depressive insanity, with a tendency to hypochondriasis or mel-

ancholia, which complicate general paralysis much oftener than was at first supposed, may deceive inattentive physicians, or those who have not made a special study of insanity. In the *Union Médicale*, of November, 1849, and in the *Annales Médico-Psychologiques*, 1850, I noticed a mistake that had been committed by Ricamier in the case of a patient affected with profound melancholia, accompanied with general paralysis. The latter had come on so insidiously, and almost imperceptibly, that one of the most learned physicians, a highly distinguished alienist, gave the following certificate, on the 27th September, 1845. "I, the undersigned, Physician to the Asylum of X., certify that M. is affected with melancholia, with a tendency to become chronic, and that I believe it necessary to place him in an asylum for the insane." On the 29th, two days afterwards, I noted the situation of the patient had become more serious. In six weeks after his admission, when the paralysis had made rapid progress, and his weakness had become extreme, he was visited by Ricamier, who persisted in not recognizing the existence of general paralysis. The next day, Dr. Foville saw the patient in consultation, and at the first glance confirmed my diagnosis. Some days later the somatic and psychical symptoms were more decided; fears of poison, of loss of fortune, of sudden death, &c., paralysis of the bladder, weakness of the extremities, increased impediment of speech. The patient was taken to another house, where he could be seen more frequently by Ricamier, and died a few days afterwards.

This case demonstrates the difficulties that may be experienced in making out the diagnosis of paralysis accompanied with insanity under the form of melancholia. It is evident that the alienist physician who gave the certificate, either had not examined the patient carefully, had been misled by the depressive form of the insanity, or had only seen him at a time when the somatic phenomena were not manifested; which latter is the most probable. As to Professor Ricamier, he was entirely mistaken in the nature of the disease, and if anything could excuse him for persisting in seeing only melancholia in the case of M. X., notwithstanding the assertions of Dr. Foville

and myself, it is, that he was a stranger to the study of mental disorder.

At the meeting of the 20th November, 1857, of the Society of Medicine of the Department of the Seine, M. Baillarger called the attention of that learned body to a form of special insanity, which he called hypochondriasis, which he had observed in the course of general paralysis, in which, said he, it appeared to be met with almost exclusively. This learned alienist believes that this form of mental aberration ought to be distinguished from ordinary hypochondriasis, and even from melancholia, which often show themselves among the paralytic insane. I have frequently observed the form of aberration of which M. Baillarger has spoken, and I confess I have never considered it as special in its character, but simply as a complication, or rather as one of the epiphenomena which are frequently observed not only in general paralysis with insanity, but in different forms of mental alienation. This hypochondriacal aberration is often related to melancholia, and if the patients are examined carefully, and for a sufficient length of time, it will be found that the symptoms of these two morbid states are combined or intermingled, so that the patients will say not only that they are attacked with a mortal disease, that they are going to die, that they are dead already, that they have no tongue nor mouth, nor swallow, nor stomach, nor lungs, that they are constipated, that for years their food has accumulated in their bowels, that they are impotent, that they have no virile member, that their heart does not beat, that they have no pulse, &c.; but also that they are ruined, betrayed, abandoned, poisoned, in the deepest misery, the most unhappy of mortals; that their family, relations and friends are all dead; that they have been murdered after enduring the most cruel tortures. Under hallucinations of the different senses, and delusions of a distressing nature, they shed abundant tears, and give themselves up to despair.

In most of the cases which I have observed, I have remarked the connection of the phenomena which characterize these two forms of aberration, with predominance sometimes of hypochondriacal, sometimes of melancholic ideas; and I think that in regarding them

more closely we will find them almost always united, not perhaps constantly, but more or less intimately, and we will be convinced that they are merely complications or epiphenomena, nearly related to each other, and resulting from the condition of mental and moral enfeeblement in which the patients exist.

The fact being admitted that general paralysis is met with under these two forms of excitement and depression, the alternation in the course of the same affection of these opposite states, so remarkable for the contrast they present, has not been sufficiently noticed. On certain days the paralytic insane are in a state of extreme jubilation. Every thing smiles for them ; fortune favors them ; they are worth millions ; they believe themselves poets, princes, or kings ; that they are in splendid health ; that they are beautiful, young, vigorous, and of gigantic stature. The following day they are sad, they weep, they are in the most profound misery ; they think themselves dying, or attacked with the most dangerous diseases ; in a word they are a prey to the series of symptoms which characterize the state of hypochondriacal melancholy, of which I have spoken above. The changes in the mental condition of these patients take place at longer or shorter intervals. They are observed sometimes, though rarely, in the course of a single day. I have generally observed them in the morning, on the patient's rising, so that on seeing them at that hour either joyous or distressed, could almost be certain of the condition in which they would continue during the day. It has appeared to me that this emotional condition was due to hallucinations supervening during the night, or rather, I might say, to dreams, which by reason of their depressing or exciting character, had impressed them strongly, and changed the course of their waking thoughts. I am disposed to attribute these changes to dreams rather than to hallucinations, because the latter, which frequently occur in the daytime, are but seldom followed by any change in the condition of the patient. Whether they are produced by dreams or hallucinations, it is especially at the moment of waking that one is struck by the complete change which they present in their mental manifestations. In a number of cases collected during two years, I have

noticed with scrupulous care these variations in the psychical symptoms of the paralytic insane, and I have thought it proper to call the attention of observers to the subject.

I consider the state of mental depression which is met with in the course of general paralysis as a complication, which shows itself sometimes under the melancholial, and sometimes under the hypochondriacal form, and almost constantly under both at the same time, so that it may be said that the depressed condition of the intellectual and moral faculties, although varying in symptomatic expression, is nevertheless in reality one and the same morbid condition. I regret in this respect not to coincide with the opinion of M. Baillarger, but I do not believe in the existence of a special, hypochondriacal aberration. The depressive form is only a variety of general paralysis of the insane, whose numerous and proteiform symptoms present a character and physiognomy varying in almost every case.

Does general paralysis, accompanied with hypochondriasis or melancholia, make more rapid progress, and does it end more promptly in death than the other forms? Is the gangrenous diathesis more rapidly developed? M. Baillarger answers in the affirmative. The greater number of general paralytics whom I have seen affected with either hypochondriasis or melancholia have lived but a short time, and have suffered from gangrenous eschars. Ought the disposition to gangrene and the fatal termination to be attributed to this complication? It can be easily understood that in the depressive form the progress of the disease should be rapid, for these patients, almost always a prey to the most distressing delusions, the most painful hallucinations, and to unusual visceral sensations, deprived of sleep and of repose both day and night, refusing to eat and to drink, except at irregular intervals or when compelled by artificial means, fall rapidly into a very feeble state, accompanied with frightful emaciation. In such a condition the circulation daily becomes weaker, assimilation no longer goes on, all the functions become languishing and are performed imperfectly. The consequence which must result is easily foreseen. We ought not, therefore, to be surprised that the

gangrenous diathesis otherwise so frequent in general paralysis, even when accompanied with expansive delusions, should under these unfavorable circumstances exercise a still more injurious influence, and that a speedily fatal termination should be the result.

M. Baillarger says, that this hypochondriacal form may in certain cases aid in the diagnosis of general paralysis. But hypochondriacal melancholy is quite frequently met with when there is no lesion of motion ; so that its presence might completely lead into error if the other symptoms were neglected.

On the 28th Feb., 1847, our learned colleague, M. Ferrus, sent me a patient, who at first showed only morbid psychical symptoms, ambitious, extravagant ideas, and insane projects. A few days afterwards, we observed that there were embarrassment and difficulty of speech—symptoms which his family had noticed previously to his admission. The following passages of a letter, written a few weeks after his entrance into my asylum, will show his mental condition.

“Sire :—I resort to your assistance for deliverance from the prison in which I have been confined for the last eighteen days. Sent by God, I come to improve immensely the condition of mankind throughout the whole earth. One night, while lying awake, I was bathed in a splendor which overpowered me, and in a light which penetrated my inmost soul. I then received a divine revelation, which is to change the face of the world, and to bring men immeasurably nearer the Deity. God has chosen me to establish it in the earth. * * Jesus Christ, my predecessor. * * I can make 150 millions of money in a day. I have discovered perpetual motion,” &c.

In about three months perceptible improvement was manifested. The conversation of M. X. became rational, his letters were sane, his stammering disappeared, and he repeatedly demanded his discharge. I believed he was concealing his real condition, and charged him with certain insane expressions he had uttered. He then sent me the following account to prove to me that he was no longer insane ; notwithstanding at the same moment he made presents of the value of one hundred thousand francs, and wished to buy a residence in the Champs Elysees.

"My insanity had not yet reached its height when I entered the Pinel establishment, which was only three or four days after its commencement. I can not explain how such absurd ideas, which I am now myself astonished at, could have entered my mind. I wrote to the king and queen letters which truly could only have been the product of a diseased brain. I recollect that I announced to them that we were to sail through the air in frigates, lightened by means of a vacuum; that water-wheels and railway-carriages were to be moved by a constant stream of running water, which was to perpetuate itself. Hence an inexhaustible source of wealth. I recollect also very well, that I intended to traverse the earth by means of a hole which was to penetrate to the antipodes. I had then entirely lost my reason, and I thank the good God who has been pleased to recall me to my senses, and to make me as sane now as I was bewildered three months ago. These observations may be useful to that science which treats of disorders of the brain. In writing my history now, I feel as though I was writing that of another man. My reason has returned perfectly, and I only feel a sort of shame at having given such clear proofs of mental unsoundness. Nevertheless I have no apprehension for the future. All that has passed seems like a dream, and I wake in my perfect senses. Donec at the Palace of St. James, 4th June, 1847."

What I have related of M. X. goes to prove that it is sometimes difficult to ascertain the actual condition of the patient, unless he is examined very carefully. If I had judged of his state by the conversations I had with him, and the letters he wrote me, I should have declared positively that he was not insane.

On the 7th May, 1855, I received into my establishment M. X., whose condition is described in the following certificate.

"The undersigned physicians certify that M. X. is affected with dementia and general paralysis, the consequence of cerebral disease of about one year's standing, and that his condition requires confinement in an institution for the insane." (Signed LEGROUX, FOVILLE, MAGNE.)

My certificate stated that he was attacked with dementia and general paralysis, characterized by impairment of the power of locomotion.

During the first few months M. X. experienced some difficulty of speech, stammering and spasmodic twitching of the lips, his hands were tremulous, his lower limbs were feeble, his gait unsteady and

slightly tottering. Memory of facts long transpired is good ; it is weak and confused in regard to recent occurrences, and his ideas are vain and irrational. A double amaurosis has existed about two years, and blindness is complete ; yet the patient persists in saying that he can see. Towards Autumn there was some diminution of the paralytic symptoms.

Drs. Foville and Legroux visited the patient again, in December, and noted an improvement in the lesion of motion ; but the same impairment of the intellectual faculties as at first. During the winter his family requested that he might be placed under guardianship. He was questioned by the judge, and by a deputy of the procurator-general, and the court upon the result of the examination granted the interdiction. Towards the end of winter the physical symptoms had almost disappeared. He was somewhat more rational ; nevertheless the mental impairment could not be doubtful. About the first of May, M. X. was taken from the establishment, and a short time after demanded the removal of the interdiction. Three physicians were commissioned to examine the patient. Their certificate states that M. X. has not been attacked with general paralysis, and that he could not have been affected with it, for that disease is incurable.

The family requested MM. Ferrus, Foville, Baillarger and Pinel to visit the patient. They examined him at different times very carefully, and decided that he was in a state of mental impairment, and unable to direct his movements, or to manage his estate.

MM. Falret, Brierre de Boismont, and Blanche, appointed by the court to report upon the patient, are still more explicit. They say that he is affected with a lesion of the muscular functions, with notable impairment of the intellect, and conclude in the same manner.

M. X. is placed in a private asylum, where he is submitted for eight days to the examination of the directing physician. This gentleman attempts to prove in his report that M. X. could not have been affected with general paralysis, because that disease always goes on increasing, is never cured, and remissions never occur at the stage to which he has arrived. The inferior court, and the court of

Appeal removed the interdiction, a judiciary counsel only being given to M. X., who was well enough to marry, a few months afterwards.

At the conclusion of our last meeting, Dr. Lisle informed me that M. X. was in a condition of mind that in his opinion left nothing to be desired. If this is correct, his must be a case of recovery from general paralysis. I do not wish that we should enter into any discussion of this case. I only desire to remark that three physicians, in the first place, declared the existence of general paralysis; that two of them verified it anew, seven months afterwards; that the physician of the prefecture certified it at three different times; that the physicians of the asylum, who had the patient under their care during a whole year, also attested it; that three alienist physicians, appointed by the court, gave the same opinion; that two other alienists, to whom were added Drs. Foville and Pinel, shared the same opinion; that notwithstanding four other physicians of incontestible merit thought themselves warranted in affirming, that M. X. never could have been attacked with general paralysis because there actually existed no symptom of that disease which in their opinion was incurable.

This case, of which I have only given a brief outline, goes to show what I wished to prove in relating other cases of general paralysis, namely, that under certain circumstances its diagnosis becomes the more difficult, as the symptoms which characterize it diminish or disappear, to such an extent, that it is impossible to observe any traces of them, and that the disappearance of one set of symptoms may raise a doubt sometimes that there has been general paralysis, at others that there has been mental disorder. If you examine an insane general paralytic during a remission, in which the somatic symptoms have ceased to be manifested, you certainly can not believe in the present existence of general paralysis, but it would not be proper to assert that the patient never had been affected with it. It is the same when the psychical symptoms are no longer manifested, are transient, or are concealed by the patient. We may in such cases, which are more common than has been supposed, commit errors, and may not be able to discover at once the real

physical and mental condition of the patient. Continued attention, successive and frequent examinations, a careful study, not only of the present but of the anterior condition of the patient, are means which can not fail to enlighten conscientious men who are sincerely desirous above all things of getting at the truth.

It has been repeatedly said that general paralysis is incurable. I think that the word incurable ought to be banished from pathology, and from the vocabulary of hospitals. Must we inscribe upon the front of asylums where insane paralytics are received, the despairing words of the celebrated Italian poet ?

“ Voi qu' intrate lasciate ogni speranza.”

Must physicians still remain under the painful belief that all their efforts are, and must ever be in vain ? Must it be that without confidence in their prescriptions, their gloomy prognosis must continue to lacerate hearts already too unhappy ?

For my part, I have a profound conviction that general paralysis is not beyond the resources of medicine, and I am happy to be able to base my opinion on many incontestible cases of success, and among others on that remarkable one preserved by M. Ferrus, and related in the thesis of M. Lasegue. I hope the time is not distant when we may count on a greater number of cases. I will submit, if I am not mistaken, an example for your consideration.

M. B., an advocate, aged 60 years, entered the 13th of April, 1846, having suffered about 18 years before, an attack of apoplexy, in consequence of which he had incomplete hemiplegia of the right side, which continued to affect the leg. It permitted him, however, to walk, and even to follow the chase. M. B., who up to this time had followed the profession of law with great distinction, no longer pursued the duties of his vocation. He preserved the full integrity of his mental faculties, and was much esteemed in the society he frequented. He was happy in his domestic relations, and was much attached to his wife, by whom he had one daughter.

M. B., who had exhausted the pleasures of life, especially in regard to women, had no sexual intercourse with his wife for about

two years, and it was remarked during this time that he was somewhat sombre and morose. Some months before his entrance into my establishment he became gay and joyous, he experienced frequent erections, and finding that his wife could no longer content him, he resorted to houses of ill-fame, where he gave himself up to sexual excesses. He was attacked with severe priapism, and about the same time showed symptoms of ambitious insanity. The physicians of the town having employed various means without success advised his wife to take him to Paris, and to place him in an asylum for the insane. Seated in the coupé of the diligence with his wife, and daughter, 12 years of age, he never ceased singing and behaving obscenely, and the mother was obliged to put the daughter inside of the coach to spare her the pain of such an exhibition. Left alone with his wife, he stripped himself to his shirt, and during the night had connection a dozen times, with seminal discharges. The day after his arrival in Paris he was brought to my establishment under the idea of going to a distinguished chemist for the purpose of presenting to him his plans for the exploration of a mine of "fossil turpentine," of which he had specimens in his pocket handkerchief.

His condition was as follows: Head hot, principally over the occipital region, face flushed, eyes brilliant, countenance smiling, speech difficult, occasional stammering, loquacity, agitation, obscene conduct, desire to see women, partial paralysis of the right lower extremity, the right arm the same as the left, circulation regular and normal, memory of recent occurrences feeble. The following days the excitement increases, he sings obscene songs, forms insane projects, believes himself immensely rich. He is general, king, emperor, is going to the assistance of Poland with a regiment of cuirassiers, which, after the fashion of the middle ages, he will raise at his own expense. The satyriasis increases; he marries a princess of the blood royal; he cries out, vociferates, calls for young women to satisfy his burning desires; insomnia, incessant loquacity, hallucinations. He talks with girls whom he thinks he holds in his arms; he calls them by name; he is in ecstasy over the happiness, the delight and the pleasure they give him. He expatiates on their charms; he is in a complete intoxication of pleasure.

This state of excitement of the genital organs continues for three weeks, and at length yields under the means employed,—cups to the nape of the neck, baths prolonged for five, six, eight or ten hours daily, with the cold douche in a fine shower upon the head during the bath, laxatives, mucilaginous and nitrous drinks, camphorated potions, opiates, and a low diet.

The general paralysis progressed. The patient became filthy ; he allowed his excrement and urine to escape in his bed and in his clothing ; he rolled in filth ; his limbs were weaker, and could scarcely support his weight ; he dragged both feet in walking, and his tottering gait became more and more difficult. His speech is embarrassed and tongue tremulous ; he is badly nourished and emaciates daily. His legs and feet are œdematous, his eyes are dull, his aspect stupid, his countenance wears a perpetual, silly smile, his sensibility is obtuse, and his memory null. The emotional feelings are almost abolished ; he sees his wife and leaves her with indifference ; says he is the happiest of men ; is incapable of holding or following the slightest conversation. One thing alone occupies and absorbs him ; that is the diamonds of which he has discovered a mine in the garden of his division. He passes his time in digging up the ground, and collecting all the pebbles he can find, which he believes are precious stones whose value is incalculable. He picks them out, classifies and puts them away in a part of the garden, to be deposited finally in his collection. The most valuable are placed sometimes in such quantities in his pockets, and in his shirt, of which he forms a kind of bag above his pantaloons, that he is unable to rise from the spot where he is sitting. If his hands are confined he digs the earth with his feet. If he is compelled to leave his mine and his diamonds, he cries, he shows the utmost distress, and begs in mercy to be allowed to return to them. Once there he no longer shrieks, and is perfectly quiet. His urine, which escapes constantly, is so charged with albumen that it is quite milky in its appearance. His filthy habits increase ; he has some hours of sleep, but at the dawn of day he wishes to rise. He cries out and knocks for his attendant to open the door so that he may resume his work.

The physical and mental weakness increases; he can not walk without assistance. His appetite is insatiable.

Towards the beginning of August, four months after his admission, he has fever, abdominal pains, dysentery, difficult respiration, severe bronchitis, considerable œdematous swelling of the legs and feet, with erysipelas of the left leg, frequent and small pulse, extreme debility, burning thirst, red and dry tongue, continual delusions, constant gayety, unmeaning laughter, difficult pronunciation, dorsal decubitus, gangrenous eschars on the sacrum and right heel. (Rice-water, starch injections with laudanum, opiated gum-water, poultices over the abdomen, diascordium, wine of quinine, and rich soups.)

Under the influence of this treatment, the symptoms of the intercurrent malady diminished, and toward the end of the month the patient could leave his bed. The insane ideas are of the same character, but more numerous. He is the owner of the château of Randan, belonging to Madame Adelaide; he is worth millions. He continues to be filthy, night and day; is unable to stand, and scarcely to sit. He lies down to gather diamonds, and says that he is the happiest man in the world. His limbs are œdematous, especially in the evening.

About the beginning of September, two cauteries were applied to the neck, cold shower-baths were directed, and the wine of quinine and tonic regimen were continued. His system is better nourished; he is more calm at night, and sleeps better; his evacuations are more under the control of his will, and he is more cleanly in his habits. He has gained flesh and strength, and he is able to walk out. His speech is less embarrassed, but his insanity continues; he wishes to leave the asylum, because he thinks himself well, and expresses his wishes very earnestly. He is somewhat less occupied with his diamonds.

Towards the middle of September, his mind appears less disordered. His conversation is connected, and more rational; his memory is improved; he desires to see his family, and complains that no one comes to visit him. He talks less of his whimsical ideas, which

we have not ceased to combat, and is not so positive in speaking of them. His convictions have been shaken by the frequent conversations we have had together. He sleeps well ; the functions are all natural ; he is calm, reads, walks out and amuses himself. He still thinks that the pebbles he has collected are diamonds, but does not seek for others, and neglects those which have been gathered. He persists in saying that he is the owner of the château of Randan ; writes insane letters to his wife and to his friends ; thinks his wife has not left Paris, and pretends that he has seen her and his daughter, and that he has been deceived. Always having had confidence in us, and grateful for the interest we had taken in his welfare, he listened with attention when we attempted to convince him that he had been the sport of numerous illusions and insane ideas, which had prevented the exercise of his rational judgment. We announced to him a letter from his wife, her speedy return to Paris, and her intention of taking him back to his family. Two days later, about the end of September, he received a letter from his wife, and from that moment there was no trace of insanity. He admitted that he had been insane, and declared that he was delivered forever from his delusions, and manifested to us the most lively gratitude. His wife arrived, and he saw her with pleasure. She found him entirely rational ; his speech was unembarrassed ; his conversation was agreeable and full of amenity. He left on the 10th of October, in a perfectly sane condition of mind, and returned to his native country. During the ten years that elapsed until his death, he continued entirely well, and wrote us many letters to testify his grateful feelings.